2007-02-27 2520-0132PUS1_ST25 SEQUENCE LISTING

```
MIYAGAWA , Shuji
MATSUNAMI , Katsuyoshi
<110>
<120>
       HLA-E CHIMERIC MOLECULE
<130>
       2520-0132PUS1
       US 10/578,139
2006-05-03
<140>
<141>
<160>
<170>
       PatentIn version 3.4
<210>
<211>
      21
<212>
      PRT
<213>
      Artificial Sequence
<220>
       Description of Artificial Sequence: Synthetic chimeric sequence
<223>
       SP of HLA-E
<400>
Met Val Asp Gly Thr Leu Leu Leu Leu Ser Glu Ala Leu Ala Leu
Thr Gln Thr Trp Ala
            20
<210>
<211>
      90
<212>
      PRT
<213>
      Artificial Sequence
<220>
<223>
       Description of Artificial Sequence: Synthetic chimeric sequence
       al domain of HLA-E
<400>
Gly Ser His Ser Leu Lys Tyr Phe His Thr Ser Val Ser Arg Pro Gly
Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
            20
Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg 35 40 45
Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr
    50
Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr
                                         Page 1
```

80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala 85 90

70

<210> 3

<211> 92 <212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence a2 domain of HLA-E

<400> 3

Gly Ser His Thr Leu Gln Trp Met His Gly Cys Glu Leu Gly Pro Asp 10 10 15

Arg Arg Phe Leu Arg Gly Tyr Glu Gln Phe Ala Tyr Asp Gly Lys Asp 20 25 30

Tyr Leu Thr Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Val Asp Thr 35 40 45

Ala Ala Gln Ile Ser Glu Gln Lys Ser Asn Asp Ala Ser Glu Ala Glu 50 60

His Gln Arg Ala Tyr Leu Glu Asp Thr Cys Val Glu Trp Leu His Lys 65 70 75 80

Tyr Leu Glu Lys Gly Lys Glu Thr Leu Leu His Leu 85 90

<210> 4

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence a3 domain of HLA-E

<400> 4

Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu
10 15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr 20 25 30

Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu 35 40 45 Page 2

```
Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala 50 55 60
Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln 65 70 75 80
His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp
<210>
<211> 63
<212> PRT
<213> Artificial Sequence
<220>
<223>
        Description of Artificial Sequence: Synthetic chimeric sequence
        Transmembrane domain of HLA-E
<400>
Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly 1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15
Leu Val Leu Leu Gly Ser Val Val Ser Gly Ala Val Val Ala Ala Val 20 25 30
Ile Trp Arg Lys Lys Ser Ser Gly Gly Lys Gly Gly Ser Tyr Ser Lys 35 40 45
Ala Glu Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu 50 60
<210>
<211>
       63
<212>
       DNA
<213>
       Artificial Sequence
<220>
<223>
        Description of Artificial Sequence: Synthetic chimeric sequence
        SP of HLA-E
                                                                                 60
atggtagatg gaaccctcct tttactcctc tcggaggccc tggcccttac ccagacctgg
                                                                                 63
gcg
<210>
        270
<211>
<212>
       DNA
<213>
       Artificial Sequence
<220>
<223>
       Description of Artificial Sequence: Synthetic chimeric sequence
                                            Page 3
```

al domain of HLA-E

al domain of HLA-E
<400> 7 ggctcccact ccttgaagta tttccacact tccgtgtccc ggcccggccg cggggagccc 60
cgcttcatct ctgtgggcta cgtggacgac acccagttcg tgcgcttcga caacgacgcc 120
gcgagtccga ggatggtgcc gcgggcgccg tggatggagc aggaggggtc agagtattgg 180
gaccgggaga cacggagcgc cagggacacc gcacagattt tccgagtgaa tctgcggacg 240
ctgcgcggct actacaatca gagcgaggcc 270
<210> 8 <211> 276 <212> DNA <213> Artificial Sequence
<220> <223> Description of Artificial Sequence: Synthetic chimeric sequence a2 domain of HLA-E
<400> 8 gggtctcaca ccctgcagtg gatgcatggc tgcgagctgg ggcccgacag gcgcttcctc 60
cgcgggtatg aacagttcgc ctacgacggc aaggattatc tcaccctgaa tgaggacctg 120
cgctcctgga ccgcggtgga cacggcggct cagatctccg agcaaaagtc aaatgatgcc 180
tctgaggcgg agcaccagag agcctacctg gaagacacat gcgtggagtg gctccacaaa 240
tacctggaga aggggaagga gacgctgctt cacctg 276
<210> 9 <211> 276 <212> DNA <213> Artificial Sequence
<220> <223> Description of Artificial Sequence: Synthetic chimeric sequence a3 domain of HLA-E
<pre><400> 9 gagcccccaa agacacacgt gactcaccac cccatctctg accatgaggc caccctgagg 60</pre>
tgctgggccc tgggcttcta ccctgcggag atcacactga cctggcagca ggatggggag 120
ggccataccc aggacacgga gctcgtggag accaggcctg caggggatgg aaccttccag 180
aagtgggcag ctgtggtggt gccttctgga gaggagcaga gatacacgtg ccatgtgcag 240
catgaggggc tacccgagcc cgtcaccctg agatgg 276
<210> 10 <211> 192 <212> DNA <213> Artificial Sequence
<220> <223> Description of Artificial Sequence: Synthetic chimeric sequence Page 4

2007-02-27 2520-0132PUS1_ST25 Transmembrane domain of HLA-E
<400> 10
aagccggctt cccagcccac catccccatc gtgggcatca ttgctggcct ggttctcctt 60
ggatctgtgg tctctggagc tgtggttgct gctgtgatat ggaggaagaa gagctcaggt 120
ggaaaaggag ggagctactc taaggctgag tggagcgaca gtgcccaggg gtctgagtct 180
cacagettgt aa 192
<210> 11 <211> 24 <212> PRT <213> Artificial Sequence
<220> <223> Description of Artificial Sequence: Synthetic chimeric sequence SP of HLA-G1
<400> 11
Met Val Val Met Ala Pro Arg Thr Leu Phe Leu Leu Leu Ser Gly Ala 1 5 10 15
Leu Thr Leu Thr Glu Thr Trp Ala 20
<210> 12 <211> 90 <212> PRT <213> Artificial Sequence
<220> <223> Description of Artificial Sequence: Synthetic chimeric sequence al domain of HLA-G1
<400> 12
Gly Ser His Ser Met Arg Tyr Phe Ser Ala Ala Val Ser Arg Pro Gly
1 5 10 15 15
1 5 10 15 Arg Gly Glu Pro Arg Phe Ile Ala Met Gly Tyr Val Asp Asp Thr Gln
Arg Gly Glu Pro Arg Phe Ile Ala Met Gly Tyr Val Asp Asp Thr Gln 20 Phe Val Arg Phe Asp Ser Asp Ser Ala Cys Pro Arg Met Glu Pro Arg

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala Page 5

<210> 13 92 <211>

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence a2 domain of HLA-G1

<400>

Ser Ser His Thr Leu Gln Trp Met Ile Gly Cys Asp Leu Gly Ser Asp 1 10 15

Gly Arg Leu Leu Arg Gly Tyr Glu Gln Tyr Ala Tyr Asp Gly Lys Asp 20 25 30

Tyr Leu Ala Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr

Ala Ala Gln Ile Ser Lys Arg Lys Cys Glu Ala Ala Asn Val Ala Glu 50 60

Gln Arg Arg Ala Tyr Leu Glu Gly Thr Cys Val Glu Trp Leu His Arg 65 70 75 80

Tyr Leu Glu Asn Gly Lys Glu Met Leu Gln Arg Ala 85 90

<210> 14

92

<211> <212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence a3 domain of HLA-G1

<400> 14

Asp Pro Pro Lys Thr His Val Thr His His Pro Val Phe Asp Tyr Glu
10 15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Ile 20 25 30

Leu Thr Trp Gln Arg Asp Glu Asp Gln Thr Gln Asp Val Glu Leu 35 40

Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala 50 60 Page 6

Val 65	Val	Val	Pro	Ser	Gly 70	Glu	Glu	Gln	Arg	Tyr 75	Thr	Cys	His	Val	G1n 80		
His	Glu	Gly	Leu	Pro 85	Glu	Pro	Leu	Met	Leu 90	Arg	Trp						
<210 <211 <212 <213	> >	15 40 PRT Arti	ficia	al Se	equer	ıce											
<220 <223	>	Desc Tran:	ript [.] smemb	ion o	of Ai e dor	rtif nain	icia ⁻ of I	l Sed	queno 31	ce:	Synt	thet ⁻	ic cl	hime	ric s	sequenc	e
<400	>	15															
Lys 1	Gln	Ser	Ser	Leu 5	Pro	Thr	Ile	Pro	Ile 10	Met	Gly	Ile	Val	Ala 15	Gly		
Leu	Val	Val	Leu 20	Ala	Ala	Val	Val	Thr 25	Gly	Ala	Ala	۷al	Ala 30	Ala	Val		
Leu	Trp	Arg 35	Lys	Lys	Ser	Ser	Asp 40										
<210 <211 <212 <213	> >	16 72 DNA Arti	ficia	al Se	equer	ıce											
<220 <223	>	Desc SP o	ript [.] f HL <i>A</i>	ion d A-G1	of Ai	rtif	icia ⁻	l Sed	quenc	ce:	Synt	thet ⁻	ic cl	himen	ric s	sequenc	e
<400 atgg		16 tca	tggc	gccc	cg aa	accci	tctt	c ctg	gctgo	ctct	cgg	gggco	cct (gacco	ctgac	cc	60
gaga	cct	ggg	cg														72
<210 <211 <212 <213	> >	17 270 DNA Arti	ficia	al Se	equer	ıce											
<220 <223	>	Desc a1 d	ript [.] omair	ion a	of Ai HLA-	rtif -G1	icia ⁻	l Sed	quenc	ce:	Synt	thet ⁻	ic cl	himen	ric s	sequenc	e
<400 ggct		17 act	ccato	gaggt	ta ti	ttca	gcgco	c gco	cgtgt	tccc	ggc	ccgg	ccg (cgggg	gagco	cc	60
cgct	tca	tcg	ccato	gggct	ta co	gtgga	acga	acg	gcagt	ttcg	tgc	ggtto	ga (cagc	gacto	:g	120
gcgt	gtc	cga	ggato	ggago	cc go	cggg	cgcc	g tgg		gagc Page		agggg	gcc a	agagt	tatto	gg	180

gaagaggaga cacggaacac caaggcccac gcacagactg acaga	atgaa cctgcagacc 240
ctgcgcggct actacaacca gagcgaggcc	270
<210> 18 <211> 276 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: Synthation and HLA-G1	etic chimeric sequence
<400> 18 agttctcaca ccctccagtg gatgattggc tgcgacctgg ggtcc	gacgg tcgcctcctc 60
cgcgggtatg aacagtatgc ctacgatggc aaggattacc tcgcc	
cgctcctgga ccgcagcgga cactgcggct cagatctcca agcgc	
aatgtggctg aacaaaggag agcctacctg gagggcacgt gcgtg	gagtg gctccacaga 240
tacctggaga acgggaagga gatgctgcag cgcgcg	276
<210> 19 <211> 276 <212> DNA <213> Artificial Sequence	
<pre><220> <223> Description of Artificial Sequence: Synth a3 domain of HLA-G1</pre>	etic chimeric sequence
400 10	
<pre><400> 19 gacccccca agacacacgt gacccaccac cctgtctttg actat</pre>	gaggc caccctgagg 60
gacccccca agacacacgt gacccaccac cctgtctttg actat	cagcg ggatggggag 120
gacccccca agacacacgt gacccaccac cctgtctttg actat tgctgggccc tgggcttcta ccctgcggag atcatactga cctgg	cagcg ggatggggag 120 gatgg aaccttccag 180
gacccccca agacacacgt gacccaccac cctgtctttg actated tgctgggccc tgggcttcta ccctgcggag atcatactga cctgggaccagaccc aggacgtgga gctcgtggag accaggcctg caggg	cagcg ggatggggag 120 gatgg aaccttccag 180
gacccccca agacacacgt gacccaccac cctgtctttg actated tyctgggccc tgggcttcta ccctgcggag atcatactga cctgggaccagaccc aggacgtgga gctcgtggag accaggcctg cagggaagtgggcag ctgtggtggt gccttctgga gaggagcaga gatacagggcaga ctgtggtggt gccttctgga gaggagcaga gatacagg	cagcg ggatggggag 120 gatgg aaccttccag 180 acgtg ccatgtgcag 240
gacccccca agacacacgt gacccaccac cctgtctttg actating tgctgggccc tgggcttcta ccctgcggag atcatactga cctgggaccagaccc aggacgtgga gctcgtggag accaggcctg caggggagagggagggggagggggggggg	cagcg ggatggggag 120 gatgg aaccttccag 180 acgtg ccatgtgcag 240
gacccccca agacacacgt gacccaccac cctgtctttg actate tgctgggccc tgggcttcta ccctgcggag atcatactga cctgg gaccagaccc aggacgtgga gctcgtggag accaggcctg cagggg aagtgggcag ctgtggtggt gccttctgga gaggagcaga gatacc catgaggggc tgccggagcc cctcatgctg agatgg <210> 20 <211> 123 <212> DNA <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthe	cagcg ggatggggag 120 gatgg aaccttccag 180 acgtg ccatgtgcag 240 276 etic chimeric sequence
gacccccca agacacacgt gacccaccac cctgtctttg actate tgctgggccc tgggcttcta ccctgcggag atcatactga cctgg gaccagaccc aggacgtgga gctcgtggag accaggcctg cagggg aagtgggcag ctgtggtggt gccttctgga gaggagcaga gatacc catgaggggc tgccggagcc cctcatgctg agatgg <210> 20 <211> 123 <212> DNA <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthe Transmembrane domain of HLA-G1 <400> 20	cagcg ggatggggag 120 gatgg aaccttccag 180 acgtg ccatgtgcag 240 276 etic chimeric sequence

```
<210>
       21
<211>
       24
<212>
       PRT
<213>
       Artificial Sequence
<220>
       Description of Artificial Sequence: Synthetic chimeric sequence
<223>
       Reformed SP
<400>
       21
Met Ala Val Met Ala Pro Arg Thr Leu Val Leu Leu Ser Gly Ala 1 5 10 15
Leu Thr Leu Thr Glu Thr Trp Ala
             20
       22
90
<210>
<211>
<212>
       PRT
<213>
       Artificial Sequence
<220>
<223>
       Description of Artificial Sequence: Synthetic chimeric sequence
       a1 domain
<400>
       22
Gly Ser His Ser Leu Lys Tyr Phe His Thr Ser Val Ser Arg Pro Gly 10 	ext{10}
Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln 20 25 30
Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg 35 40 45
Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr
Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr 65 70 75 80
Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala
85 90
       23
<210>
       92
<211>
<212>
       PRT
<213>
       Artificial Sequence
<220>
<223>
       Description of Artificial Sequence: Synthetic chimeric sequence
                                          Page 9
```

a2 domain

<400> 23

Ser Ser His Thr Leu Gln Trp Met Ile Gly Cys Asp Leu Gly Ser Asp 10 15

Gly Arg Leu Leu Arg Gly Tyr Glu Gln Tyr Ala Tyr Asp Gly Lys Asp 20 25 30

Tyr Leu Ala Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr 35 40 45

Ala Ala Gln Ile Ser Lys Arg Lys Cys Glu Ala Ala Asn Val Ala Glu 50 55 60

Gln Arg Arg Ala Tyr Leu Glu Gly Thr Cys Val Glu Trp Leu His Arg 65 70 75 80

Tyr Leu Glu Asn Gly Lys Glu Met Leu Gln Arg Ala 85 90

<210> 24

<211> 92 <212> PRT

<213> Artificial Sequence

<220>

Description of Artificial Sequence: Synthetic chimeric sequence a3 domain

<400> 24

Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu 1 5 10 15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr 20 25 30

Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu 35 40

Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala 50 55 60

Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln 65 70 75 80

His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp 85 90

<210> <211> <212> <213>	2007-02-27 2520-0132PUS1_ST25 25 63 PRT Artificial Sequence	
<220> <223>	Description of Artificial Sequence: Synthetic chimeric sequence Transmembrane domain	e
<400>	25	
Lys Pro 1	o Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly 5 10 15	
Leu Va	ll Leu Leu Gly Ser Val Val Ser Gly Ala Val Val Ala Ala Val 20 25 30	
Ile Tr	p Arg Lys Lys Ser Ser Gly Gly Lys Gly Gly Ser Tyr Ser Lys 35 40 45	
Ala Glu 50	u Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu 55 60	
<210> <211> <212> <213>	26 72 DNA Artificial Sequence	
<220> <223>	Description of Artificial Sequence: Synthetic chimeric sequence Reformed SP	e
<400> atggcgg	26 gtca tggcgccccg aaccctcgtc ctgctactct cgggggccct gaccctgacc	60
gagacct	tggg cg	72
<210> <211> <212> <213>	27 270 DNA Artificial Sequence	
<220> <223>	Description of Artificial Sequence: Synthetic chimeric sequence al domain	e
<400> ggctcco	27 cact ccttgaagta tttccacact tccgtgtccc ggcccggccg cggggagccc	60
cgcttca	atct ctgtgggcta cgtggacgac acccagttcg tgcgcttcga caacgacgcc	120
gcgagt	ccga ggatggtgcc gcgggcgccg tggatggagc aggaggggtc agagtattgg	180
gaccgg	gaga cacggagcgc cagggacacc gcacagattt tccgagtgaa tctgcggacg	240
ctgcgcg	ggct actacaatca gagcgaggcc	270

ctgcgcggct actacaatca gagcgaggcc

			2007-	02-27 2520-	0132PUS1_ST	25	
<210> <211> <212> <213>	28 276 DNA Arti	ificial Sequ	Jence				
<220> <223>		cription of domain	Artificial	Sequence:	Synthetic	chimeric	sequence
<400>	28 caca	ccctccagtg	gatgattggc	tgcgacctgg	ggtccgacgg	tcqcctcc	tc 6
				aaggattacc			
				cagatctcca			3
				gagggcacgt			
			gatgctgcag		gegeggugeg	gereeuca	27
taccig	jaya	acyggaagga	gatgetgeag	cgcgcg			21
<210> <211> <212> <213>	29 276 DNA Arti	ficial Sequ	uence				
<220> <223>		cription of domain	Artificial	Sequence:	Synthetic	chimeric	sequence
<400>	29						6
				cccatctctg			
tgctggg	gccc	tgggcttcta	ccctgcggag	atcacactga	cctggcagca	ggatgggg	
ggccata	accc	aggacacgga	gctcgtggag	accaggcctg	caggggatgg	aaccttcc	ag 18
aagtggg	gcag	ctgtggtggt	gccttctgga	gaggagcaga	gatacacgtg	ccatgtgc	ag 24
catgagg	gggc	tacccgagcc	cgtcaccctg	agatgg			27
<210> <211> <212> <213>	30 192 DNA Arti	ficial Sequ	uence				
<220> <223>	Desc Tran	cription of smembrane o	Artificial domain	Sequence:	Synthetic	chimeric	sequence
<400> aagccgg	30 gctt	cccagcccac	catccccatc	gtgggcatca	ttgctggcct	ggttctcc	tt 6
				gctgtgatat			
				tggagcgaca			
cacagct			335-9	:55 -5-g-3	J - J	J = 2 = 3 = 3 =	19
cacage	cege						13
<210>	31						

<211> 24

```
2007-02-27 2520-0132PUS1_ST25
```

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence Reformed SP

<400> 31

Met Ala Val Met Ala Pro Arg Thr Leu Val Leu Leu Ser Gly Ala 1 5 10 15

Leu Thr Leu Thr Glu Thr Trp Ala 20

<210> 32

<211> 90

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
 al domain

<400> 32

Gly Ser His Ser Leu Lys Tyr Phe His Thr Ser Val Ser Arg Pro Gly 10 10

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln 20 25 30

Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg 35 40 45

Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr 50 60

Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr 65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala 85 90

<210> 33

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence a2 domain

<400> 33

```
2007-02-27 2520-0132PUS1_ST25
Gly Ser His Thr Leu Gln Trp Met His Gly Cys Glu Leu Gly Pro Asp
1 5 10 15
Arg Arg Phe Leu Arg Gly Tyr Glu Gln Phe Ala Tyr Asp Gly Lys Asp 20 25 30
Tyr Leu Thr Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Val Asp Thr
Ala Ala Gln Ile Ser Lys Arg Lys Cys Glu Ala Ala Asn Val Ala Glu 50 60
Gln Arg Arg Ala Tyr Leu Glu Gly Thr Cys Val Glu Trp Leu His Arg
65 70 75 80
Tyr Leu Glu Asn Gly Lys Glu Met Leu Gln Arg Ala
85 90
<210>
        34
<211>
<212>
        92
       PRT
<213>
       Artificial Sequence
<220>
        Description of Artificial Sequence: Synthetic chimeric sequence
        a3 domain
<400>
Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu
10 15
Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr 20 25 30
Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu 35 \hspace{1cm} 40 \hspace{1cm} 45
Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala 50 55 60
Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln 65 70 75 80
His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp
85 90
        35
<210>
<211>
        63
<212>
<213>
       Artificial Sequence
```

<220> <223> Description of Artificial Sequence: Synthetic chimeric sequence Transmembrane domain	
<400> 35	
Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly 1 5 10 15	
Leu Val Leu Leu Gly Ser Val Val Ser Gly Ala Val Val Ala Ala Val 20 25 30	
Ile Trp Arg Lys Lys Ser Ser Gly Gly Lys Gly Gly Ser Tyr Ser Lys 35 40 45	
Ala Glu Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu 50 55 60	
<210> 36 <211> 72 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: Synthetic chimeric sequence Reformed SP	
<400> 36 atggcggtca tggcgccccg aaccctcgtc ctgctactct cgggggccct gaccctgacc 6	60
gagacctggg cg	72
<210> 37 <211> 270 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: Synthetic chimeric sequence al domain	
<400> 37 ggctcccact ccttgaagta tttccacact tccgtgtccc ggcccggccg cggggagccc (60
	20
	80
gaccgggaga cacggagcgc cagggacacc gcacagattt tccgagtgaa tctgcggacg 24	40
ctgcgcggct actacaatca gagcgaggcc 27	70
<210> 38 <211> 276 <212> DNA <213> Artificial Sequence	

<220> <223> Description of Artificial Sequence: Synthetic chimeric sequence a2 domain
<400> 38
gggtctcaca ccctgcagtg gatgcatggc tgcgagctgg ggcccgacag gcgcttcctc 60
cgcgggtatg aacagttcgc ctacgacggc aaggattatc tcaccctgaa tgaggacctg 120
cgctcctgga ccgcggtgga cactgcggct cagatctcca agcgcaagtg tgaggcggcc 180
aatgtggctg aacaaaggag agcctacctg gagggcacgt gcgtggagtg gctccacaga 240
tacctggaga acgggaagga gatgctgcag cgcgcg 276
<210> 39 <211> 276 <212> DNA <213> Artificial Sequence
<220> <223> Description of Artificial Sequence: Synthetic chimeric sequence a3 domain
<400> 39
gagcccccaa agacacacgt gactcaccac cccatctctg accatgaggc caccctgagg 60
tgctgggccc tgggcttcta ccctgcggag atcacactga cctggcagca ggatggggag 120
ggccataccc aggacacgga gctcgtggag accaggcctg caggggatgg aaccttccag 180
aagtgggcag ctgtggtggt gccttctgga gaggagcaga gatacacgtg ccatgtgcag 240
catgaggggc tacccgagcc cgtcaccctg agatgg 276
<210> 40 <211> 192 <212> DNA <213> Artificial Sequence
<220> <223> Description of Artificial Sequence: Synthetic chimeric sequence Transmembrane domain
<pre><400> 40 aagccggctt cccagcccac catccccatc gtgggcatca ttgctggcct ggttctcctt 60</pre>
ggaaaaggag ggagctactc taaggctgag tggagcgaca gtgcccaggg gtctgagtct 180
cacagcttgt aa 192
<210> 41 <211> 24 <212> PRT <213> Artificial Sequence
<220>

```
2007-02-27 2520-0132PUS1_ST25
        Description of Artificial Sequence: Synthetic chimeric sequence
<400>
       41
Met Ala Val Met Ala Pro Arg Thr Leu Val Leu Leu Ser Gly Ala 1 5 10 15
Leu Thr Leu Thr Glu Thr Trp Ala
             20
<210> 42
<211> 90
<212> PRT
<213>
      Artificial Sequence
<220>
        Description of Artificial Sequence: Synthetic chimeric sequence
<223>
        a1 domain
       42
<400>
Gly Ser His Ser Leu Lys Tyr Phe His Thr Ser Val Ser Arg Pro Gly 1 \hspace{1cm} 10 \hspace{1cm} 15
Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln 20 \hspace{1cm} 25 \hspace{1cm} 30
Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg 35 40 45
Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr 50 60
Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr 65 70 75 80
Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala
85 90
<210>
       43
<211> 92
<212> PRT
<213> Artificial Sequence
<220>
        Description of Artificial Sequence: Synthetic chimeric sequence
<223>
        a2 domain
<400> 43
Gly Ser His Thr Leu Gln Trp Met His Gly Cys Glu Leu Gly Pro Asp
1 10 15
```

```
2007-02-27 2520-0132PUS1_ST25
Arg Arg Phe Leu Arg Gly Tyr Glu Gln Phe Ala Tyr Asp Gly Lys Asp 20 25 30
Tyr Leu Thr Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Val Asp Thr 35 40 45
Ala Ala Gln Ile Ser Lys Arg Lys Cys Glu Ala Ala Ser Glu Ala Glu 50 60
His Gln Arg Ala Tyr Leu Glu Asp Thr Cys Val Glu Trp Leu His Lys
65 70 75 80
Tyr Leu Glu Lys Gly Lys Glu Thr Leu Leu His Leu
85 90
<210>
        44
<211>
       92
<212>
       PRT
<213>
       Artificial Sequence
<220>
<223>
        Description of Artificial Sequence: Synthetic chimeric sequence
        a3 domain
<400>
Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu
10 15
Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr 20 25 30
Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu 35 40 45
Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala
50 60
Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln 65 70 75 80
His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp
85 90
<210>
       45
<211>
        63
<212>
<213>
       Artificial Sequence
<220>
        Description of Artificial Sequence: Synthetic chimeric sequence
<223>
        Transmembrane domain
```

Page 18

<400>	45	
Lys Pr	o Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly 5 10 15	
Leu Va	l Leu Leu Gly Ser Val Val Ser Gly Ala Val Val Ala Ala Val 20 25 30	
Ile Tr	p Arg Lys Lys Ser Ser Gly Gly Lys Gly Gly Ser Tyr Ser Lys 35 40 45	
Ala Gl 50	u Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu 55 60	
<210> <211> <212> <213>	46 72 DNA Artificial Sequence	
<220> <223>	Description of Artificial Sequence: Synthetic chimeric sequence Reformed SP	
<400> atggcg	46 gtca tggcgccccg aaccctcgtc ctgctactct cgggggccct gaccctgacc (60
gagacc	tggg cg	72
<210> <211> <212> <213>	47 270 DNA Artificial Sequence	
<220> <223>	Description of Artificial Sequence: Synthetic chimeric sequence al domain	
<400> ggctcc	47 cact ccttgaagta tttccacact tccgtgtccc ggcccggccg cggggagccc	60
cgcttc	atct ctgtgggcta cgtggacgac acccagttcg tgcgcttcga caacgacgcc 12	20
gcgagt	ccga ggatggtgcc gcgggcgccg tggatggagc aggaggggtc agagtattgg 18	30
gaccgg	gaga cacggagcgc cagggacacc gcacagattt tccgagtgaa tctgcggacg 24	40
ctgcgc	ggct actacaatca gagcgaggcc 27	70
<210> <211> <212> <213>	48 276 DNA Artificial Sequence	
<220> <223>	Description of Artificial Sequence: Synthetic chimeric sequence a2 domain	

<400> gggtct	48 caca ccctgcagtg	gatgcatggc	tgcgagctgg	ggcccgacag	gcgcttcctc	60
cgcgggt	tatg aacagttcgc	ctacgacggc	aaggattatc	tcaccctgaa	tgaggacctg	120
cgctcc	tgga ccgcggtgga	cactgcggct	cagatctcca	agcgcaagtg	tgaggcggcc	180
tctgag	gcgg agcaccagag	agcctacctg	gaagacacat	gcgtggagtg	gctccacaaa	240
tacctg	gaga aggggaagga	gacgctgctt	cacctg			276
<210> <211> <212> <213>	49 276 DNA Artificial Sequ	uence				
<220> <223>	Description of a3 domain	Artificial	Sequence:	Synthetic o	chimeric seq	uence
<400> gagccco	49 ccaa agacacacgt	gactcaccac	cccatctctg	accatgaggc	caccctgagg	60
tgctgg	gccc tgggcttcta	ccctgcggag	atcacactga	cctggcagca	ggatggggag	120
ggccata	accc aggacacgga	gctcgtggag	accaggcctg	caggggatgg	aaccttccag	180
aagtgg	gcag ctgtggtggt	gccttctgga	gaggagcaga	gatacacgtg	ccatgtgcag	240
catgag	gggc tacccgagcc	cgtcaccctg	agatgg			276
<210> <211> <212> <213>	50 192 DNA Artificial Sequ	Jence				
<220> <223>	Description of Transmembrane o		Sequence:	Synthetic o	chimeric seq	uence
<400> aagccgg	50 gctt cccagcccac	catccccatc	gtgggcatca	ttgctggcct	ggttctcctt	60
ggatct	gtgg tctctggagc	tgtggttgct	gctgtgatat	ggaggaagaa	gagctcaggt	120
ggaaaag	ggag ggagctactc	taaggctgag	tggagcgaca	gtgcccaggg	gtctgagtct	180
cacagct	ttgt aa					192
<210> <211> <212> <213>	51 21 PRT Artificial Sequ	Jence				
<220> <223>	Description of SP of HLA-E	Artificial	Sequence:	Synthetic o	chimeric seq	uence
<400>	51		Page	20		
			PAUP	/ 1 /		

Met Val Asp Gly Thr Leu Leu Leu Leu Ser Glu Ala Leu Ala Leu 10 15

Thr Gln Thr Trp Ala 20

- <210> 52
- <211> 90
- <212> PRT
- <213> Artificial Sequence

<220>

- <223> Description of Artificial Sequence: Synthetic chimeric sequence al domain
- <400> 52

Gly Ser His Ser Leu Lys Tyr Phe His Thr Ser Val Ser Arg Pro Gly 10 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln 20 25 30

Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg 35 40 45

Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr 50 60

Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr 65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala 85 90

- <210> 53
- <211> 92
- <212> PRT
- <213> Artificial Sequence

<220>

- <223> Description of Artificial Sequence: Synthetic chimeric sequence a2 domain
- <400> 53

Gly Ser His Thr Leu Gln Trp Met His Gly Cys Glu Leu Gly Pro Asp 1 10 15

Arg Arg Phe Leu Arg Gly Tyr Glu Gln Phe Ala Tyr Asp Gly Lys Asp 20 25 30

```
2007-02-27 2520-0132PUS1_ST25
Tyr Leu Thr Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Val Asp Thr
Ala Ala Gln Ile Ser Glu Gln Lys Cys Asn Asp Ala Ser Glu Ala Glu 50 60
His Gln Arg Ala Tyr Leu Glu Asp Thr Cys Val Glu Trp Leu His Lys 70 75 80
Tyr Leu Glu Lys Gly Lys Glu Thr Leu Leu His Leu
85 90
<210>
<211> 92
<212> PRT
<213> Artificial Sequence
<220>
<223>
       Description of Artificial Sequence: Synthetic chimeric sequence
       a3 domain
<400>
Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu
1 5 10 15
Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr 20 25 30
Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu 35 40
Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala 50 60
Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln 65 70 75 80
His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp
85 90
<210>
       55
<211> 63
<212>
       Artificial Sequence
<213>
<220>
       Description of Artificial Sequence: Synthetic chimeric sequence
<223>
       Transmembrane domain
<400>
Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly
```

Page 22

2007-02-27 2520-0132PUS1_ST25 1 5 10 15 Leu Val Leu Leu Gly Ser Val Val Ser Gly Ala Val Val Ala Ala Val 20 25 30 Ile Trp Arg Lys Lys Ser Ser Gly Gly Lys Gly Gly Ser Tyr Ser Lys 35 40 45 Ala Glu Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu 50 60 <210> 56 <211> 63 <212> DNA <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic chimeric sequence SP of HLA-E <400> 56 atggtagatg gaaccctcct tttactcctc tcggaggccc tggcccttac ccagacctgg 60 gcg 63 <210> 57 270 <211> <212> DNA <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic chimeric sequence al domain 57 <400> ggctcccact ccttgaagta tttccacact tccgtgtccc ggcccggccg cggggagccc 60 cgcttcatct ctgtgggcta cgtggacgac acccagttcg tgcgcttcga caacgacgcc 120 gcgagtccga ggatggtgcc gcgggcgccg tggatggagc aggaggggtc agagtattgg 180 240 gaccgggaga cacggagcgc cagggacacc gcacagattt tccgagtgaa tctgcggacg 270 ctgcgcggct actacaatca gagcgaggcc <210> 58 276 <211> <212> DNA <213> Artificial Sequence <220> Description of Artificial Sequence: Synthetic chimeric sequence <223> a2 domain 58 <400> gggtctcaca ccctgcagtg gatgcatggc tgcgagctgg ggcccgacag gcgcttcctc 60

			2007-	02-27 2520-	0132PUS1_ST	25	
cgcgggt	tatg	aacagttcgc	ctacgacggc	aaggattatc	tcaccctgaa	tgaggacctg	120
cgctcct	tgga	ccgcggtgga	cacggcggct	cagatctccg	agcaaaagtg	taatgatgcc	180
tctgagg	gcgg	agcaccagag	agcctacctg	gaagacacat	gcgtggagtg	gctccacaaa	240
tacctgg	gaga	aggggaagga	gacgctgctt	cacctg			276
<210> <211> <212> <213>	59 276 DNA Arti	ificial Sequ	uence				
<220> <223>		cription of domain	Artificial	Sequence:	Synthetic o	chimeric seque	ence
<400> gagccco	59 ccaa	agacacacgt	gactcaccac	cccatctctg	accatgaggc	caccctgagg	60
tgctggg	gccc	tgggcttcta	ccctgcggag	atcacactga	cctggcagca	ggatggggag	120
ggccata	accc	aggacacgga	gctcgtggag	accaggcctg	caggggatgg	aaccttccag	180
aagtggg	gcag	ctgtggtggt	gccttctgga	gaggagcaga	gatacacgtg	ccatgtgcag	240
catgagg	gggc	tacccgagcc	cgtcaccctg	agatgg			276
<210> <211> <212> <213>	60 192 DNA Arti	ificial Sequ	uence				
<220> <223>		cription of nsmembrane o		Sequence:	Synthetic o	chimeric seque	ence
<400> aagccgg	60 gctt	cccagcccac	catccccatc	gtgggcatca	ttgctggcct	ggttctcctt	60
ggatctg	gtgg	tctctggagc	tgtggttgct	gctgtgatat	ggaggaagaa	gagctcaggt	120
ggaaaag	ggag	ggagctactc	taaggctgag	tggagcgaca	gtgcccaggg	gtctgagtct	180
cacagct	ttgt	aa					192
<210> <211> <212> <213>	61 24 PRT Arti	ificial Sequ	Jence				
<220> <223>	Desc Refo	cription of ormed SP	Artificial	Sequence:	Synthetic o	chimeric seque	ence
<400>	61						
Met Ala 1	a Va	l Met Ala Pr 5	ro Arg Thr ເ	eu Val Leu 10	Leu Leu Sei	r Gly Ala 15	

Leu Thr Leu Thr Glu Thr Trp Ala 20

<210> 62

<211> 90 <212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence al domain

<400> 62

Gly Ser His Ser Leu Lys Tyr Phe His Thr Ser Val Ser Arg Pro Gly
10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln $20 \hspace{1cm} 25 \hspace{1cm} 30$

Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg 35 40 45

Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr 50 60

Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr 65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala 85 90

<210> 63

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence a2 domain

<400> 63

Gly Ser His Thr Leu Gln Trp Met His Gly Cys Glu Leu Gly Pro Asp $10 \hspace{1cm} 15$

Arg Arg Phe Leu Arg Gly Tyr Glu Gln Phe Ala Tyr Asp Gly Lys Asp 20 25 30

Tyr Leu Thr Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Val Asp Thr 35 40 45

```
2007-02-27 2520-0132PUS1_ST25
Ala Ala Gln Ile Ser Glu Gln Lys Cys Asn Asp Ala Ser Glu Ala Glu 50 55 60
His Gln Arg Ala Tyr Leu Glu Asp Thr Cys Val Glu Trp Leu His Lys 65 70 75 80
Tyr Leu Glu Lys Gly Lys Glu Thr Leu Leu His Leu
85 90
<210>
<211>
<212>
       92
       PRT
<213> Artificial Sequence
<220>
<223>
       Description of Artificial Sequence: Synthetic chimeric sequence
        a3 domain
<400>
Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu
10 15
Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr 20 25 30
Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu 35 40 45
Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala 50 60
Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln 65 70 75 80
His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp
85 90
<210> 65
<211> 63
<212>
       PRT
<213>
       Artificial Sequence
<220>
        Description of Artificial Sequence: Synthetic chimeric sequence
        Transmembrane domain
<400>
Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly 1 5 10 15
Leu Val Leu Leu Gly Ser Val Val Ser Gly Ala Val Val Ala Ala Val
```

Page 26

Ile Trp Arg Lys Lys Ser Ser Gly Gly Lys Gly Gly Ser Tyr Ser Lys 35 40 45Ala Glu Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu 50 55 60 <210> 66 <211> 72 <212> DNA Artificial Sequence <213> <220> Description of Artificial Sequence: Synthetic chimeric sequence <223> Reformed SP <400> atggcggtca tggcgccccg aaccctcgtc ctgctactct cggggggccct gaccctgacc 60 72 gagacctggg cg <210> 67 270 <211> <212> DNA <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic chimeric sequence al domain <400> 67 60 ggctcccact ccttgaagta tttccacact tccgtgtccc ggcccggccg cggggagccc cgcttcatct ctgtgggcta cgtggacgac acccagttcg tgcgcttcga caacgacgcc 120 180 gcgagtccga ggatggtgcc gcgggcgccg tggatggagc aggaggggtc agagtattgg gaccgggaga cacggagcgc cagggacacc gcacagattt tccgagtgaa tctgcggacg 240 270 ctgcgcggct actacaatca gagcgaggcc <210> 68 276 <211> <212> DNA <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic chimeric sequence a2 domain <400> gggtctcaca ccctgcagtg gatgcatggc tgcgagctgg ggcccgacag gcgcttcctc 60 cgcgggtatg aacagttcgc ctacgacggc aaggattatc tcaccctgaa tgaggacctg 120

cgctcctgga ccgcggtgga cacggcggct cagatctccg agcaaaagtg taatgatgcc

180

tctgagg	gcgg	agcaccagag		02-27 2520- gaagacacat	gcgtggagtg		240
tacctg	gaga	aggggaagga	gacgctgctt	cacctg			276
<210> <211> <212> <213>	69 276 DNA Arti	ficial Sequ	uence				
<220> <223>		ription of lomain	Artificial	Sequence:	Synthetic o	chimeric sequenc	e
<400> gagccco	69 ccaa	agacacacgt	gactcaccac	cccatctctg	accatgaggc	caccctgagg	60
tgctgg	gccc	tgggcttcta	ccctgcggag	atcacactga	cctggcagca	ggatggggag	120
ggccata	accc	aggacacgga	gctcgtggag	accaggcctg	caggggatgg	aaccttccag	180
aagtggg	gcag	ctgtggtggt	gccttctgga	gaggagcaga	gatacacgtg	ccatgtgcag	240
catgagg	gggc	tacccgagcc	cgtcaccctg	agatgg			276
<210> <211> <212> <213>	70 192 DNA Arti	ficial Sequ	ience				
<220> <223>		ription of smembrane o		Sequence:	Synthetic o	chimeric sequenc	e
<400> aagccgg	70 gctt	cccagcccac	catccccatc	gtgggcatca	ttgctggcct	ggttctcctt	60
ggatct	gtgg	tctctggagc	tgtggttgct	gctgtgatat	ggaggaagaa	gagctcaggt	120
ggaaaag	ggag	ggagctactc	taaggctgag	tggagcgaca	gtgcccaggg	gtctgagtct	180
cacagct	ttgt	aa					192
<210> <211> <212> <213>	71 21 PRT Arti	ficial Sequ	uence				
<220> <223>	Desc SP c	ription of of HLA-E	Artificial	Sequence:	Synthetic o	chimeric sequenc	ce
4005	71						
<400>	71						
		Gly Thr Le 5	eu Leu Leu L	Leu Leu Ser 10	Glu Ala Leu	ı Ala Leu 15	

```
<210>
       72
<211>
       90
<212>
       PRT
<213>
       Artificial Sequence
<220>
<223>
       Description of Artificial Sequence: Synthetic chimeric sequence
       al domain
<400>
       72
Gly Ser His Ser Leu Lys Tyr Phe His Thr Ala Val Ser Arg Pro Gly
10 15
Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln 20 25 30
Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg 35 40 45
Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr 50 60
Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr 65 70 75 80
Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala
85 90
      73
<210>
<211>
       92
<212>
       PRT
<213>
       Artificial Sequence
<220>
<223>
       Description of Artificial Sequence: Synthetic chimeric sequence
       a2 domain
<400>
       73
Gly Ser His Thr Leu Gln Trp Met His Gly Cys Glu Leu Gly Pro Asp
10 15
Arg Arg Phe Leu Arg Gly Tyr Glu Gln Phe Ala Tyr Asp Gly Lys Asp 20 25 30
Tyr Leu Thr Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Val Asp Thr
```

Ala Ala Gln Ile Ser Glu Gln Lys Cys Asn Asp Ala Ser Glu Ala Glu 50 60

```
2007-02-27 2520-0132PUS1_ST25
His Gln Arg Ala Tyr Leu Glu Asp Thr Cys Val Glu Trp Leu His Lys 65 70 75 80
Tyr Leu Glu Lys Gly Lys Glu Thr Leu Leu His Leu
85 90
<210>
<211>
       92
<212>
       PRT
<213>
       Artificial Sequence
<220>
<223>
       Description of Artificial Sequence: Synthetic chimeric sequence
       a3 domain
<400>
      74
Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu
Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr 20 25 30
Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu 35 40 45
Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala 50 60
Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln 65 70 75 80
His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp
85 90
<210>
       75
<211>
       63
<212>
       PRT
<213>
       Artificial Sequence
<220>
       Description of Artificial Sequence: Synthetic chimeric sequence
<223>
       Transmembrane domain
<400>
Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly
Leu Val Leu Gly Ser Val Val Ser Gly Ala Val Val Ala Ala Val 20 25 30
Ile Trp Arg Lys Lys Ser Ser Gly Gly Lys Gly Gly Ser Tyr Ser Lys
```

Page 30

Ala Glu Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu

<210> 76 <211> 63 <212> DNA <213> Artificial Sequence <220> Description of Artificial Sequence: Synthetic chimeric sequence <223> SP of HLA-E <400> 76 60 atggtagatg gaaccctcct tttactcctc tcggaggccc tggcccttac ccagacctgg 63 gcg <210> 77 <211> 270 <212> DNA <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic chimeric sequence al domain <400> ggctcccact ccttgaagta tttccacact gccgtgtccc ggcccggccg cggggagccc 60 120 cgcttcatct ctgtgggcta cgtggacgac acccagttcg tgcgcttcga caacgacgcc 180 gcgagtccga ggatggtgcc gcgggcgccg tggatggagc aggaggggtc agagtattgg gaccgggaga cacggagcgc cagggacacc gcacagattt tccgagtgaa tctgcggacg 240 270 ctgcgcggct actacaatca gagcgaggcc <210> 78 <211> 276 <212> DNA <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic chimeric sequence a2 domain <400> gggtctcaca ccctgcagtg gatgcatggc tgcgagctgg ggcccgacag gcgcttcctc 60 120 cgcgggtatg aacagttcgc ctacgacggc aaggattatc tcaccctgaa tgaggacctg cgctcctgga ccgcggtgga cacggcggct cagatctccg agcaaaagtg taatgatgcc 180 tctgaggcgg agcaccagag agcctacctg gaagacacat gcgtggagtg gctccacaaa 240 276 tacctggaga aggggaagga gacgctgctt cacctg

<210> <211> <212> <213>	79 276 DNA Artificial Sequence						
<220> <223>	Description of Artificial Sequence: Synthetic chimeric sequence a3 domain						
<400>	79						
gagccc	ccaa agacacacgt gactcaccac cccatctctg accatgaggc caccctgagg	60					
tgctgg	gccc tgggcttcta ccctgcggag atcacactga cctggcagca ggatggggag 1	20					
ggccata	accc aggacacgga gctcgtggag accaggcctg caggggatgg aaccttccag $$.80					
aagtgg	gcag ctgtggtggt gccttctgga gaggagcaga gatacacgtg ccatgtgcag 2	40					
catgaggggc tacccgagcc cgtcaccctg agatgg 276							
<210> <211> <212> <213>	80 192 DNA Artificial Sequence						
<220> <223>	Description of Artificial Sequence: Synthetic chimeric sequence Transmembrane domain						
<400>	80	60					
		.20					
ggaaaaggag ggagctactc taaggctgag tggagcgaca gtgcccaggg gtctgagtct 180							
cacagcttgt aa 192							
<210> <211> <212> <213>	81 24 PRT Artificial Sequence						
<220> <223>	Description of Artificial Sequence: Synthetic chimeric sequence Reformed SP						
<400>	81						
Met Ala Val Met Ala Pro Arg Thr Leu Val Leu Leu Leu Ser Gly Ala 10 15							
Leu Thr Leu Thr Glu Thr Trp Ala 20							
<210> <211> <212>	82 90 PRT						

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence al domain

<400>

Gly Ser His Ser Leu Lys Tyr Phe His Thr Ala Val Ser Arg Pro Gly
10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln $20 \hspace{1cm} 25 \hspace{1cm} 30$

Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg 35 40 45

Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr

Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr 65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala 85 90

<210> 83

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

Description of Artificial Sequence: Synthetic chimeric sequence <223> a2 domain

<400> 83

Gly Ser His Thr Leu Gln Trp Met His Gly Cys Glu Leu Gly Pro Asp 10 15

Arg Arg Phe Leu Arg Gly Tyr Glu Gln Phe Ala Tyr Asp Gly Lys Asp 20 25 30

Tyr Leu Thr Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Val Asp Thr

Ala Ala Gln Ile Ser Glu Gln Lys Cys Asn Asp Ala Ser Glu Ala Glu 50 60

His Gln Arg Ala Tyr Leu Glu Asp Thr Cys Val Glu Trp Leu His Lys 65 70 75 80

\$2007-02-27\$ Z520-0132PUS1_ST25 Tyr Leu Glu Lys Gly Lys Glu Thr Leu Leu His Leu 85 90

<210> 84

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence a3 domain

<400> 84

Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu $10 ext{1}$ 15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr $20 \hspace{1cm} 25 \hspace{1cm} 30$

Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu 35 40 45

Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala 50 55 60

Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln 65 70 75 80

His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp 85 90

<210> 85

<211> 63

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence Transmembrane domain

<400> 85

Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly 1 5 10 15

Leu Val Leu Gly Ser Val Val Ser Gly Ala Val Val Ala Ala Val 20 25 30

Ile Trp Arg Lys Lys Ser Ser Gly Gly Lys Gly Gly Ser Tyr Ser Lys 35 40 45

Ala Glu Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu Page 34

<210> <211> <212> <213>	86 72 DNA Arti	ificial :	Sequ	uence				
<220> <223>	Desc Refo	ription ormed SP	of	Artificial	Sequence:	Synthetic o	chimeric sequ	uence
<400> atggcgg	86 gtca	tggcgcc	ccg	aaccctcgtc	ctgctactct	cgggggccct	gaccctgacc	60
gagacct	tggg	cg						72
<210> <211> <212> <213>	87 270 DNA Arti	ficial :	Sequ	uence				
<220> <223>		ription domain	of	Artificial	Sequence:	Synthetic o	chimeric sequ	uence
<400> ggctcco	87 cact	ccttgaa	gta	tttccacact	gccgtgtccc	ggcccggccg	cggggagccc	60
cgcttca	atct	ctgtggg	cta	cgtggacgac	acccagttcg	tgcgcttcga	caacgacgcc	120
gcgagto	ccga	ggatggt	gcc	gcgggcgccg	tggatggagc	aggaggggtc	agagtattgg	180
gaccggg	gaga	cacggag	cgc	cagggacacc	gcacagattt	tccgagtgaa	tctgcggacg	240
ctgcgcg	ggct	actacaa [.]	tca	gagcgaggcc				270
<210> <211> <212> <213>	88 276 DNA Arti	ficial	Sequ	uence				
<220> <223>	Desc a2 c	ription domain	of	Artificial	Sequence:	Synthetic o	chimeric sequ	uence
<400> gggtcto		ccctgca	gtg	gatgcatggc	tgcgagctgg	ggcccgacag	gcgcttcctc	60
cgcgggt	tatg	aacagtt	cgc	ctacgacggc	aaggattatc	tcaccctgaa	tgaggacctg	120
cgctcct	tgga	ccgcggt	gga	cacggcggct	cagatctccg	agcaaaagtg	taatgatgcc	180
tctgagg	gcgg	agcacca	gag	agcctacctg	gaagacacat	gcgtggagtg	gctccacaaa	240
tacctg	gaga	aggggaa	gga	gacgctgctt	cacctg			276
<210> <211> <212>	89 276 DNA							

2007-02-27 2520-0132PUS1_ST25 <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic chimeric sequence a3 domain <400> gagcccccaa agacacacgt gactcaccac cccatctctg accatgaggc caccctgagg 60 tgctgggccc tgggcttcta ccctgcggag atcacactga cctggcagca ggatggggag 120 180 ggccataccc aggacacgga gctcgtggag accaggcctg caggggatgg aaccttccag 240 aagtgggcag ctgtggtggt gccttctgga gaggagcaga gatacacgtg ccatgtgcag catgagggc tacccgagcc cgtcaccctg agatgg 276 <210> 90 <211> 192 <212> DNA <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic chimeric sequence Transmembrane domain <400> 60 aagccggctt cccagcccac catccccatc gtgggcatca ttgctggcct ggttctcctt 120 ggatctgtgg tctctggagc tgtggttgct gctgtgatat ggaggaagaa gagctcaggt 180 ggaaaaggag ggagctactc taaggctgag tggagcgaca gtgcccaggg gtctgagtct 192 cacagcttgt aa <210> 91 <211> 9 <212> PRT <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic HLA leader peptide <400> 91 Val Met Ala Pro Arg Thr Leu Val Leu 1 <210> 92 <211> 9 <212> PRT <213> Artificial Sequence <220>

Page 36

Description of Artificial Sequence: Synthetic HLA leader peptide

<223>

<400>

92

Val Met Ala Pro Arg Thr Leu Phe Leu 1